

PODC 2014 Tentative Program

(As of July 13, 2014)

Tuesday 15 July

16:00 – 19:00 **Maurice Herlihy: 60th Birthday Celebration**
19:00 – 21:00 **Reception**

Wednesday 16 July

08:55 – 09:00 **Welcome Address**
09:00 – 10:00 **Keynote Address**

Rational and Resilient Protocols
Silvio Micali

10:00 – 10:20 **Coffee break**

10:20 – 12:00 **Session 1: 4 regular talks** (Chair: Jennifer Welch)

10:20 Signature-Free Asynchronous Byzantine Consensus with $t < n/3$ and $O(n^2)$ Messages (**Best paper award**)
Achour Mostéfaoui, Hamouma Moumen and Michel Raynal

10:45 Asynchronous MPC with a Strict Honest Majority Using Non-equivocation
Michael Backes, Fabian Bendun, Ashish Choudhury and Aniket Kate

11:10 Distributing the Setup in Universally Composable Multi-Party Computation
Jonathan Katz, Aggelos Kiayias, Hong-Sheng Zhou and Vassilis Zikas

11:35 A Paradox of Eventual Linearizability in Shared Memory
Rachid Guerraoui and Eric Ruppert

12:00 – 13:30 **Lunch break**

13:30 – 14:09 **Session 2: 1 regular talks + 2 brief announcements** (Chair: Michel Raynal)

13:30 The Future(s) of Shared Data Structures
Alex Kogan and Maurice Herlihy

13:55 BA: Are Lock-Free Concurrent Algorithms Practically Wait-Free?
Dan Alistarh, Keren Censor-Hillel and Nir Shavit

14:02 BA: A Generic Construction for Nonblocking Dual Containers
Joseph Izraelevitz and Michael L. Scott.

14:09 – 15:49 **Session 3: 4 regular talks** (Chair: Stefan Schmid)

14:09 Multi-Message Broadcast with Abstract MAC Layers and Unreliable Links
Mohsen Ghaffari, Erez Kantor, Nancy Lynch and Calvin Newport

14:34 Consensus with an Abstract MAC Layer
Calvin Newport

14:59 Simple and Efficient Local Codes for Distributed Stable Network Construction
Othon Michail and Paul G. Spirakis.

15:24 Linear-in- Δ Lower Bounds in the LOCAL Model
Mika Göös, Juho Hirvonen and Jukka Suomela.

15:49 – 16:09 Coffee break

16:09 – 17:24 Session 4: 3 regular talks (Chair: Nitin Vaidya)

- 16:09 Anonymous Networks: Randomization = 2-Hop Coloring
Yuval Emek, Christoph Pfister, Jochen Seidel and Roger Wattenhofer
- 16:34 Beyond Set Disjointness: The Communication Complexity of Finding the Intersection
Joshua Brody, Amit Chakrabarti, Ranganath Kondapally, David P. Woodruff and Grigory Yaroslavtsev
- 16:59 Breathe before Speaking: Efficient Information Dissemination Despite Noisy, Limited and Anonymous Communication
Ofer Feinerman, Bernhard Haeupler and Amos Korman

17:24 – 18:03 Session 5: 1 regular talk + 2 brief announcements (Chair: Moti Yung)

- 17:24 Estimation for Monotone Sampling: Competitiveness and Customization
Edith Cohen
- 17:49 BA: Towards Security and Privacy for Outsourced Data in the Multi-Party Setting
Matteo Maffei, Giulio Malavolta, Manuel Reinert and Dominique Schröder
- 17:56 BA: Game Theoretical Approach for Energy-Delay Balancing in Distributed Duty-Cycled MAC Protocols of Wireless Networks
Messaoud Doudou, Jose M. Barcelo Ordinas, Djamel Djenouri, Jorge Garcia Vidal and Nadjib Badache

18:03 – 20:00 Business meeting and Dijkstra Prize Ceremony

Thursday 17 July

09:00 – 10:00 Keynote Address

Coding Theory for Scalable Media Delivery
Michael Luby

10:00 – 10:20 Coffee break

10:20 – 12:00 Session 6: 4 regular talks (Chair: Alexander Shvartsman)

- 10:20 Distributed Connectivity Decomposition (**Best student paper award**)
Keren Censor-Hillel, Mohsen Ghaffari and Fabian Kuhn
- 10:45 Can Quantum Communication Speed Up Distributed Computation?
Michael Elkin, Hartmut Klauck, Danupon Nanongkai and Gopal Pandurangan
- 11:10 Optimal Gossip with Direct Addressing
Bernhard Haeupler and Dahlia Malkhi
- 11:35 Concurrent Updates with RCU: Search Tree as an Example
Maya Arbel and Hagit Attiya

12:00 – 13:30 Lunch break

13:30 – 14:09 Session 7: 1 regular talk + 2 brief announcements (Chair: Panagiota Fatourou)

- 13:30 Complexity Tradeoffs for Read and Update Operations
Danny Hendler and Vitaly Khait

13: 55 BA: Distributed Universality: Contention-Awareness, Wait-freedom, Object Progress, and Other Properties
Michel Raynal, Julien Stainer and Gadi Taubenfeld

14: 02 BA: Concurrency-Aware Linearizability
Nir Hemed and Noam Rinetzky

14:09 – 15:49 Session 8: 4 regular talks (Chair: Vassos Hadzilacos)

14:09 Software-Improved Hardware Lock Elision
Yehuda Afek, Amir Levy and Adam Morrison

14:34 A Generalized Asynchronous Computability Theorem
Eli Gafni, Petr Kuznetsov and Ciprian Manolescu

14:59 Balls-into-Leaves: Sub-logarithmic Renaming in Synchronous Message-Passing Systems
Dan Alistarh, Oksana Denysyuk, Luís Rodrigues and Nir Shavit

15:24 Dynamic-Sized Nonblocking Hash Tables
Yujie Liu, Kunlong Zhang and Michael Spear

15:49 – 16:00 Coffee break

16:00 – 17:40 Session 9: 4 regular talks (Chair: Seth Gilbert)

16:00 Trade-offs between Selection Complexity and Performance when Searching the Plane without Communication
Christoph Lenzen, Nancy Lynch, Calvin Newport and Tsvetomira Radeva

16:25 Improved Distributed Steiner Forest Construction
Christoph Lenzen and Boaz Patt-Shamir

16:50 Spanners and Sparsifiers in Dynamic Streams
Michael Kapralov and David P. Woodruff

17:15 Time Versus Cost Tradeoffs for Deterministic Rendezvous in Networks
Avery Miller and Andrzej Pelc

17:40 – 17:50 Short break

17:50 – 19:00 2013 ACM A.M. Turing Award Lecture

An incomplete History of Concurrency Chapter 1. 1965—1977
Leslie Lamport

19:15 – 19:30 Words and Champagne Celebration

***** Conference banquet *****

Friday 18 July

09:00 – 10:00 Keynote Address

Rigorous System Design
Joseph Sifakis.

10:00 – 10:20 Coffee break

10:20 – 12:00 Session 10: 4 regular talks (Chair: Paul Spirakis)

10:20 How to Withstand Mobile Virus Attacks, Revisited
Joshua Baron, Karim El Defrawy, Joshua Lampkins and Rafail Ostrovsky

- 10:45 Born and Raised Distributively: Fully Distributed Non-Interactive Adaptively-Secure Threshold Signatures with Short Shares
Benoît Libert, Marc Joye and Moti Yung
- 11:10 Fast and Unconditionally Secure Anonymous Channel
Juan Garay, Clint Givens, Rafail Ostrovsky and Pavel Raykov
- 11:35 Distributed Algorithms for the Lovász Local Lemma and Graph Coloring
Kai-Min Chung, Seth Pettie and Hsin-Hao Su

12:00 – 13:30 Lunch break

13:30 – 14:34 Session 11: 2 regular talks + 2 brief announcements (Chair: Petr Kuznetsov)

- 13:30 Efficient Lock-free Binary Search Trees
Bapi Chatterjee, Nhan Nguyen and Philippos Tsigas
- 13:55 The Amortized Complexity of Non-blocking Binary Search Trees
Faith Ellen, Panagiota Fatourou, Joanna Helga and Eric Ruppert
- 14:20 BA: Gracefully Degrading Consensus and k-Set Agreement under Dynamic Link Failures
Manfred Schwarz, Kyrill Winkler, Ulrich Schmid, Martin Biely and Peter Robinson
- 14:27 BA: Local Approximability of Minimum Dominating Set on Planar Graphs
Miikka Hilke, Christoph Lenzen and Jukka Suomela

14:34 – 16:10 Session 12: 3 regular talks + 3 brief announcements (Chair: Joseph Sifakis)

- 14:34 Beyond Geometry : Towards Fully Realistic Wireless Models
Marijke H.L. Bodlaender and Magnús M. Halldórsson
- 14:59 On the Impact of Geometry on Ad Hoc Communication in Wireless Networks
Tomasz Jurdzinski, Dariusz R. Kowalski, Michal Rozanski and Grzegorz Stachowiak
- 15:24 On the Power of the Congested Clique Model
Andrew Drucker, Fabian Kuhn and Rotem Oshman
- 15:49 BA: Linial's Lower Bound Made Easy
Juhana Laurinharju and Jukka Suomela
- 15:56 BA : Super-Fast t-Ruling Sets
Tushar Bisht, Kishore Kothapalli and Sriram V. Pemmaraju
- 16:03 BA: Almost-Tight Approximation Distributed Algorithm for Minimum Cut
Danupon Nanongkai

16:10 – 16:30 Coffee break

16:30 – 18:10 Session 13: 4 regular talks (Chair: Luís Rodrigues)

- 16:30 Making Objects Writable
Zahra Aghazadeh, Wojciech Golab and Philipp Woelfel
- 16:55 Asynchronous Convex Hull Consensus in the Presence of Crash Faults
Lewis Tseng and Nitin H. Vaidya
- 17:20 Distributed Computing Building Blocks for Rational Agents
Yehuda Afek, Yehonatan Ginzberg, Shir Landau Feibish and Moshe Sulamy
- 17:45 Near-Optimal Communication-Time Tradeoff in Fault-Tolerant Computation of Aggregate Functions
Yuda Zhao, Haifeng Yu and Binbin Chen